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## NOTICE OF ALLOWANCE AND FEE(S) DUE

32665

7590

09/22/2010

Haynes and Boone, LLP  
IP Section  
2323 Victory Avenue  
SUITE 700  
Dallas, TX 75219

EXAMINER

HENRY, MARIE GEORGE S A

ART UNIT

PAPER NUMBER

2455

DATE MAILED: 09/22/2010

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/575,433      | 01/16/2007  | Yong-Man Ro          | AB-1849 US          | 1864             |

TITLE OF INVENTION: METHOD AND APPARATUS FOR CONVERTING THE MODALITY OF MULTIMEDIA CONTENTS TO SUPPORT THE  
QUALITY OF SERVICE ACCORDING TO MEDIA RESOURCE

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO           | \$1510        | \$300               | \$0                  | \$1810           | 12/22/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to:** **Mail** **Mail Stop ISSUE FEE**  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

|                    |
|--------------------|
| (Depositor's name) |
| (Signature)        |
| (Date)             |

326/5                      7590                      09/22/2010

**Haynes and Boone, LLP**  
**IP Section**  
**2323 Victory Avenue**  
**SUITE 700**  
**Dallas, TX 75219**

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10/575,433                      01/16/2007                      **Yong-Man Ro**                      AB-1849 US                      1864

**TITLE OF INVENTION: METHOD AND APPARATUS FOR CONVERTING THE MODALITY OF MULTIMEDIA CONTENTS TO SUPPORT THE QUALITY OF SERVICE ACCORDING TO MEDIA RESOURCE**

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| EXAMINER              | ART UNIT | CLASS-SUBCLASS |
|-----------------------|----------|----------------|
| HENRY, MARIEGEORGES A | 2455     | 709-203000     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/122; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, \_\_\_\_\_ 1
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. \_\_\_\_\_ 2
- \_\_\_\_\_ 3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

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- ☐ A check is enclosed.
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- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

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| Haynes and Boone, LLP<br>IP Section<br>2323 Victory Avenue<br>SUITE 700<br>Dallas, TX 75219 |             |                      | HENRY, MARIE GEORGES A. |                  |
|   |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2455                    |                  |
|   |             |                      | DATE MAILED: 09/22/2010 |                  |

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability****Application No.**

10/575,433

**Examiner**

Marie Georges Henry

**Applicant(s)**

RO ET AL.

**Art Unit**

2455

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the request for continued examination filed on 04/13/2010.
2. ☒ The allowed claim(s) is/are 1-34 and 36-38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

/David Lazaro/  
Primary Examiner, Art Unit 2455  
September 17, 2010

/Marie Georges Henry/  
Examiner, Art Unit 2455

### **DETAILED ACTION**

1. This office correspondence is a response to the applicant's request for continued examination filed on April 13, 2010.
3. Claim 1-39 are pending.

### **EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Shenker Registration No. 34, 250 on 9/17/2010.

The application has been amended as follows:

#### **Claims 1-5 (Previously Presented).**

**Claim 6 (Currently Amended):** In a system including an apparatus for processing multimedia contents, a method for selecting a desired modality from a plurality of

modalities each of which is adoptable by a multimedia item as an alternative to any other modality of the plurality of modalities, the desired modality being for adopting the multimedia item to one or more media resources, the method comprising:

(1) for each said modality, obtaining by the system a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources each of which is a resource of a network or terminal, the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap;

(2) obtaining by the system a resource value v1 belonging to at least two of the sets; and

(3) selecting by the system the desired modality from the modalities whose associated sets contain the resource value v1, the desired modality being selected using the content value specifications of the modalities whose associated sets contain the resource value v1;

wherein the method further comprises, after operation (3), converting by the system the multimedia item's modality into the desired modality;

wherein the content value specifications are obtained from content value curves and scale factors for said modalities;

wherein each of the content value specifications is obtained by combining quality curves that are measured according to two or more different qualities.

**Claims 7-17 (Previously Presented).**

**Claim 18 (Currently Amended).** In a system including an apparatus for processing multimedia contents, a method for building an overlap content model for a multimedia item which is available in any one of a plurality of alternative modalities, the overlap content model being for providing a desired modality from the plurality of modalities in response to a resource value which is a value of one or more media resources, the method comprising:

(1) for each said modality, obtaining by the system a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources each of which is a resource of a network or terminal, the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap;

(2) determining by the system, from the content value specifications, sub-sets of said sets, wherein for each said sub-set, one of the content value specifications provides a maximum content value for each resource value in the sub-set, wherein the modality associated with said one of the content value specifications is the desired modality for each resource value in the sub-set;

wherein at least one of the sub-sets includes a resource value belonging to at least two of said sets;

wherein at least one said content value specification is obtained by combining quality specifications associated with respective different qualities, each quality specification providing, for each resource value in the associated set, a content value based on the respective quality.

**Claim 19 (Previously Presented).**

**Claim 20 (Currently Amended).** In a system including an apparatus for processing multimedia contents, a method for selecting a desired modality from a plurality of modalities each of which is adoptable by a multimedia item as an alternative to any other modality of the plurality of modalities, the desired modality being for adopting the multimedia item to one or more media resources, the method comprising:



(1) the system obtaining data which define, for each said modality, a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources each of which is a resource of a network or terminal, the content value specification providing a content value for each of said one or more resource values in the associated set;

wherein for at least one modality which is one of said modalities, the associated content value specification depends on each of a plurality of quality specifications that are different from each other, wherein each quality specification associates each resource value in the content value specification's associated set with a quality-specific content value for the modality, the associated set comprising a plurality of resource values;

wherein for at least said one modality, the data defines the quality specifications to define the associated content value specification;

(2) the system obtaining a resource value v1 belonging to at least one of the sets;  
and

(3) the system selecting the desired modality from said modalities, the desired modality's content value specification's associated set containing the resource value v1.

**Claims 21-30 (Previously Presented).**

**Claim 31 (Currently Amended).** A method of converting a modality of multimedia contents to support Quality of Service (QoS) of the multimedia contents according to media resources, comprising the steps of:

receiving a modality conversion descriptor in which characteristics of modality conversion of the multimedia contents are described;

receiving the multimedia contents; and

converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor,

wherein the modality conversion descriptor describes modalities of the media resource, a scale factor for each of the modalities of the media resource, and for each modality describes a plurality of quality curves, and a scale factor for each quality curve, wherein for each modality the corresponding quality curves and the scale factors define a content value curve for the modality of the media resource, wherein each of the content value curves is obtained by combining quality curves that are measured according to two or more different qualities.

**Claims 32-34 (Previously Presented).**

**Claim 35 (Presently Cancelled).**

**Claim 36 (Currently Amended).** An apparatus for converting a modality of multimedia contents to support QoS of the multimedia contents according to media resources, comprising:

means for receiving a modality conversion descriptor in which characteristics of modality conversion of the multimedia contents are described; and

means for converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor,

wherein the modality conversion descriptor describes modalities of the media resource, a scale factor for each of the modalities of the media resource, and for each modality describes a plurality of quality curves, and a scale factor for each quality curve, wherein for each modality the corresponding quality curves and the scale factors define a content value curve for the modality of the media resource, wherein each of the content value curves is obtained by combining quality curves that are measured according to two or more different qualities.

**Claims 37-38 (Previously Presented).**

**Claim 39 (Presently Cancelled).**

**REASONS FOR ALLOWANCE**

5. The following is an examiner's statement of reasons for allowance:

Claims 1-34 and 36-38 are allowed for the following reasons: prior art fails to disclose with the rest of limitations method and apparatus for converting the modality of multimedia contents to support the quality of service according to media resources where "the content value specification is obtained by combining different quality, specifications each of which provides a content value for a resource value", and where "one or more of Pi or M provide a content value for a resource value. Thus, Pi and M do not correspond to quality specifications of claim 21," as stated in page 15, lines 3-7 of Applicant's argument on November 30, 2010.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**CORRESPONDANCE INFORMATION**

7. Any inquiry concerning this communication from the examiner should be

directed to **Marie Georges Henry whose telephone number is (571)**

**270-3226.** The examiner can normally be reached on Monday to Friday 7:30am -

4:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marie Georges Henry/

Examiner, Art Unit 2455

/David Lazaro/

Primary Examiner, Art Unit 2455

September 17, 2010